

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
3 June 2004 (03.06.2004)

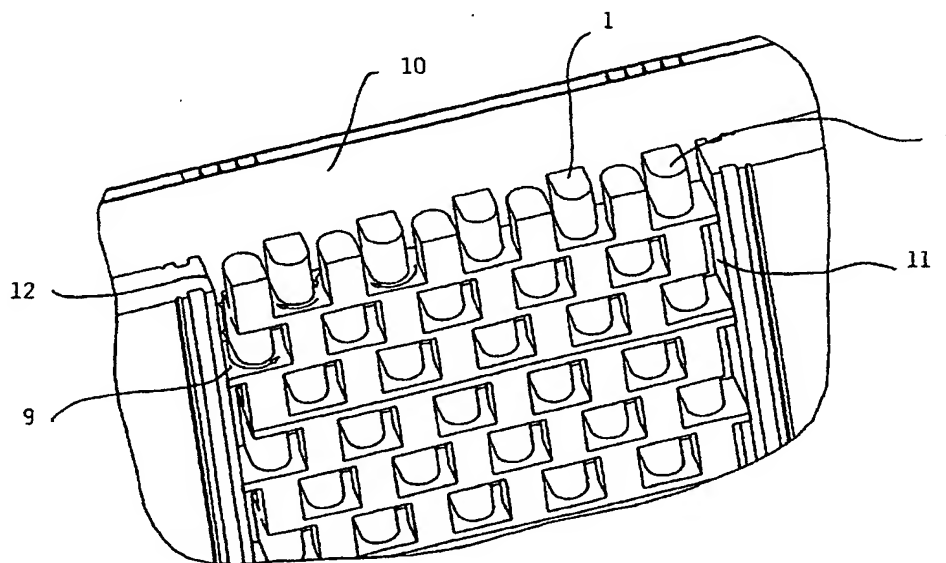
PCT

(10) International Publication Number
WO 2004/045761 A1

- (51) International Patent Classification⁷: **B01J 19/24** (74) Agent: SVENSSON, Else-Marie; ALFA LAVAL CORPORATE AB, Hans Stahles väg, S-147 80 TUMBA (SE).
- (21) International Application Number: PCT/SE2003/001719 (81) Designated States (*national*): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, EG, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 7 November 2003 (07.11.2003) (84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 0203395-9 18 November 2002 (18.11.2002) SE
- (71) Applicant (*for all designated States except US*): ALFA LAVAL CORPORATE AB [SE/SE]; Box 73, S-221 00 LUND (SE).
- (72) Inventor; and
- (75) Inventor/Applicant (*for US only*): CHOPARD, Fabrice [FR/FR]; 10 Allée du Doulan, F-38 400 SAINT MARTIN D'HERES (FR).

[Continued on next page]

(54) Title: FLOW DIRECTING INSERT FOR A REACTOR CHAMBER AND A REACTOR



(57) Abstract: A flow directing insert for a reactor chamber in a reactor has a mainly square-shaped cross-section. The chamber has an inlet at one end of the chamber and an outlet at the other end of the chamber and at least one of the walls of the reactor chamber consists of a heat conductive material or of a membrane. The insert comprises a number of units arranged in rows, which units together with the walls of the chamber define a channel for a fluid. The channel extends from a first side of the chamber to a second side of the chamber and back again to the first side backwards and forwards a number of times. The units are arranged such that the fluid is forced to flow between the units in a serpentine path. A reactor comprises at least one reactor chamber containing a flow directing insert as described above.

WO 2004/045761 A1



Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.